

Part No. 1004081

LTE ISM US FPC Dual Feed Embedded Antenna

700 MHz / 750 MHz / 850 MHz / 1700 MHz / 1800 MHz / 1900 MHz / 2100 MHz and 915 MHz

Supports: Broadband LTE, LTE CAT-M, NB-IoT, SigFox, LoRa



Ethertronics LTE and ISM US embedded antenna 1004081 address the challenges facing today's product designers. Based on a flexible substrate for easier integration, high performance and isolation characteristics, this antenna offers better connectivity, especially in smart metering application.

Electrical Specifications

Typical Characteristics, mounted in unit

KEY BENEFITS

Greater Flexibility with Unique Form Factors

KYOCERA AVX' technology helps you deliver more advanced ergonomic designs without adverse impact on product performance.

APPLICATIONS

- Home automation
- Smart metering
- M2M, Industrial devices
- IoT
- Firstnet
- Healthcare
- Point of Sale
- Tracking
- NB-IoT
- Sigfox
- LoRa
- Cellular LPWA
- RPMA
- LTE CAT-M

Feed	ISM	LTE	
Frequency (MHz)	902 - 928 MHz	700 - 900 MHz	1710 - 2155 MHz
Average Efficiency	50%	52%	59%
Peak Gain	0.5dBi	0.9dBi	3dBi
VSWR Match	2.0:1 max	4.5:1 max	3.5:1 max
Feed Point Impedance	50 ohms unbalanced		
Polarization	Linear		

Mechanical Specifications & Ordering Part Number

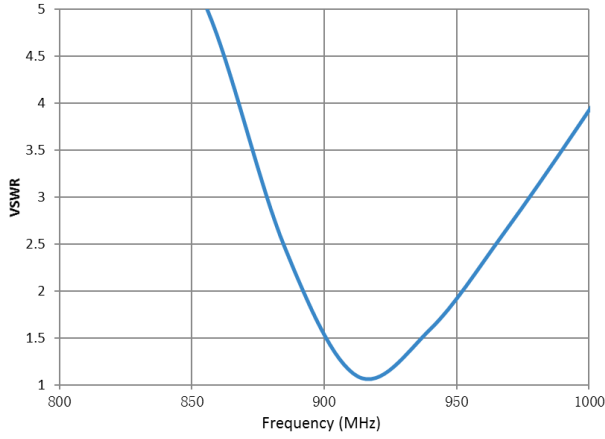
Ordering Part Number	1004081
Size (mm)	211.1 x 31.7 x 0.2 (1.6 high at cable solder connection)
Packaging	PE Bags
Connector / Cable (mm)	LTE : Length: 46, Cable diameter: 1.13, Color: Grey ISM : Length: 47, Cable diameter: 1.13, Color: Black MMCX 90° connector
Mounting	using 3M Adhesive

LTE ISM US Band Ethertronics' Embedded Antenna Specifications.
 Ethertronics produces a wide variety of standard and custom antennas to meet user needs.
 Below are the typical performances.

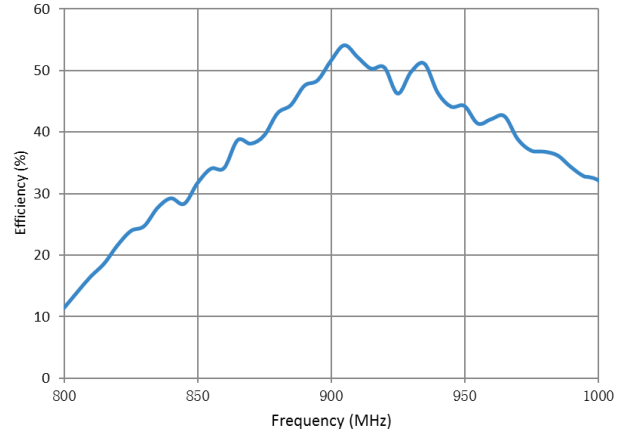
VSWR and Efficiency Plots

Typical performance measured in unit

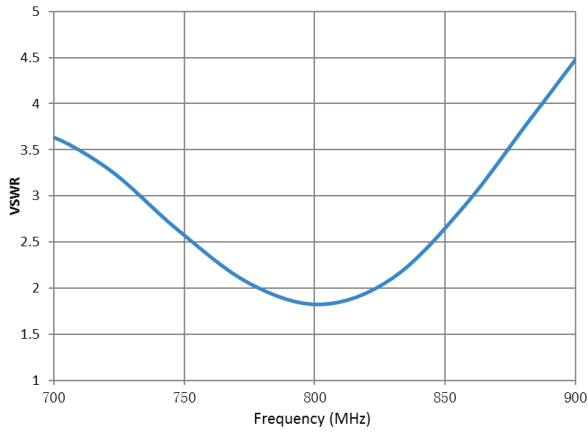
ISM US VSWR



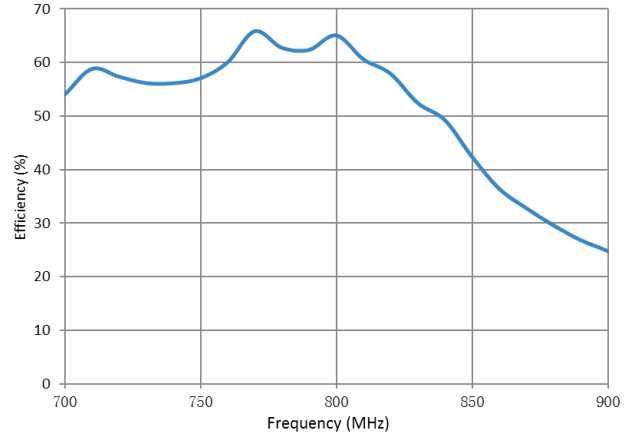
ISM US Efficiency



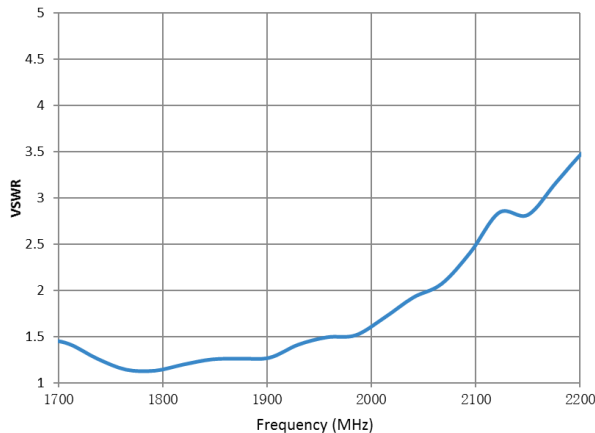
Low Band VSWR



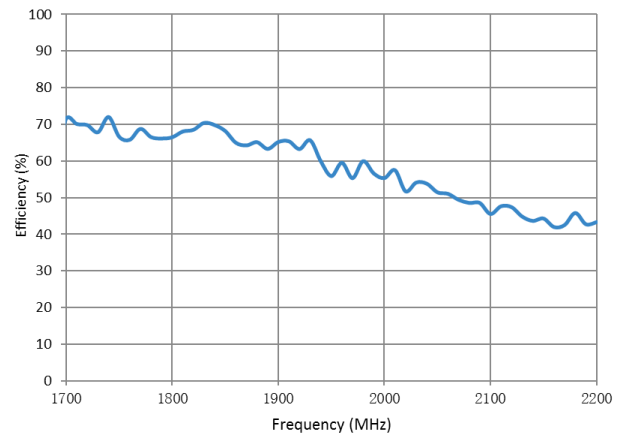
Low Band Efficiency



High Band VSWR



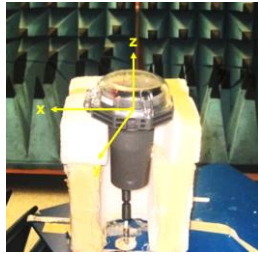
High Band Efficiency



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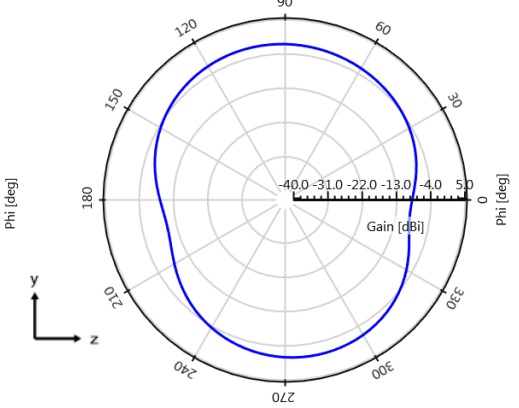
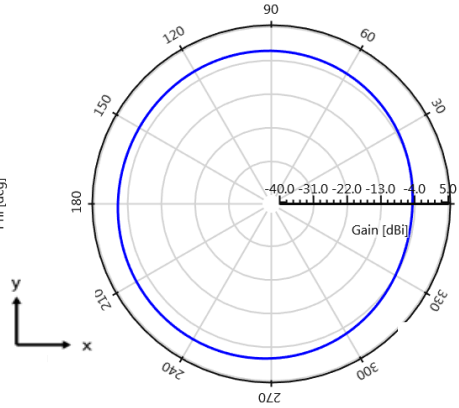
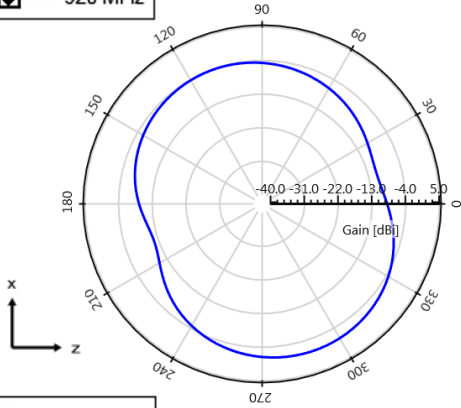
Radiation Patterns

Typical performance measured in unit



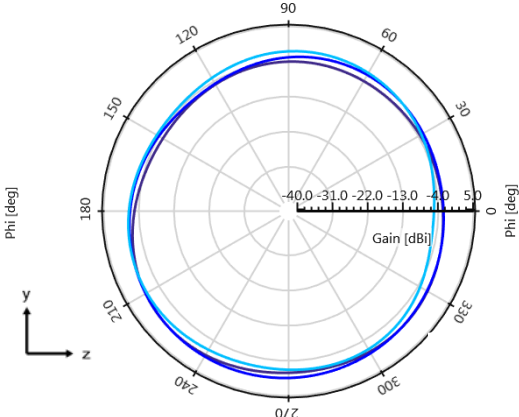
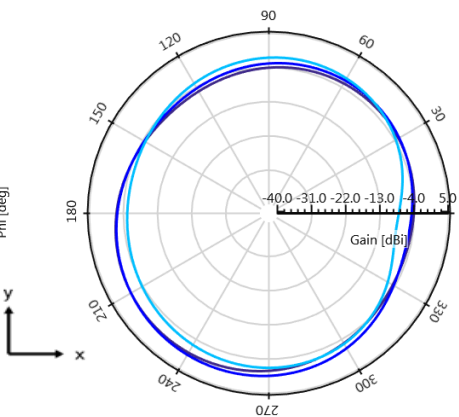
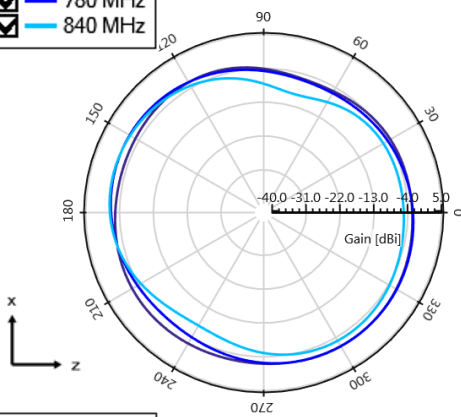
ISM US

- 920 MHz



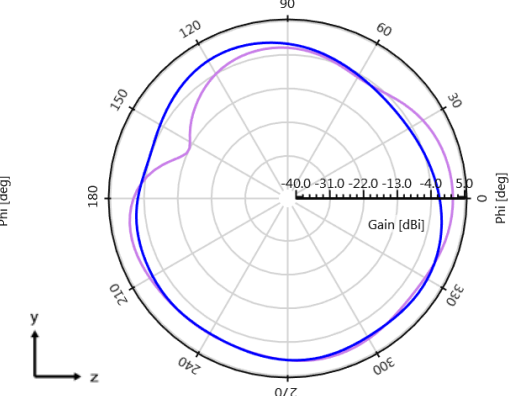
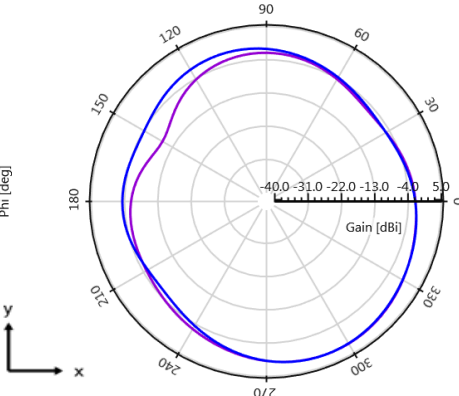
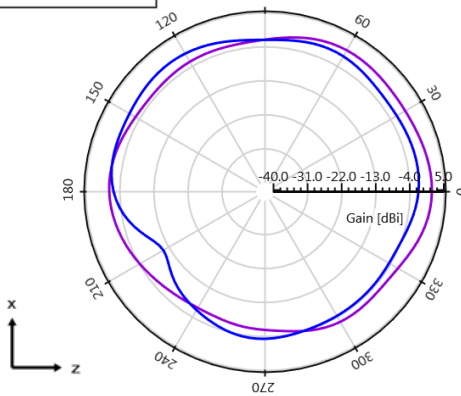
- 710 MHz
- 780 MHz
- 840 MHz

LTE Low Band



- 1750 MHz
- 1880 MHz

LTE High Band



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 Below are the typical part dimensions.

Mechanical Dimensions

Typical antenna dimensions (mm)

*Total Height of 1.6 mm includes the cable solder connection

